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ABSTRACT

This booklet, part of a course for teaching English to adult Francophones, is designed to assist the student in learning to produce the "h" sound in English and to eliminate the "intrusive h," replacing it with the glottal stop. Sections one and two describe the interlanguage situation for each case, present techniques to guide the student's pronunciation of the English sounds, and provide background information to explain the reasons underlying these difficulties. Section three contains practice sentences for both difficulties. (AM)

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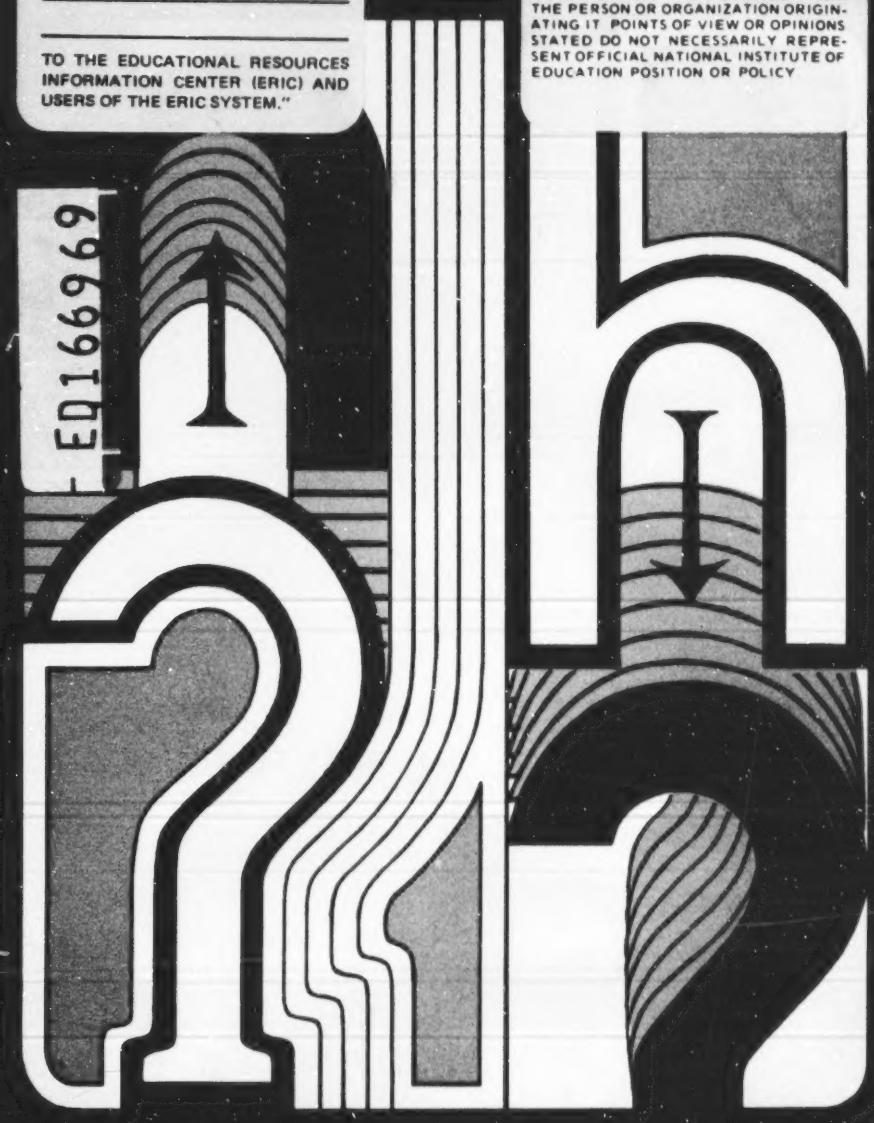

Sound Production: h

and the Elimination of the 'Intrusive h'

This booklet forms part of *Contact Canada*, a course for teaching English to adult Francophones in the Public Service of Canada.
See in particular other books in the phonological series by Howard B. Woods, M.A., B.Sc.:
Rhythm and Stress
Syllable Stress
Intonation
Blending and Liaison
Sound Production: th
Sound Production: Vowels

Sound Production: h

and the Elimination of the 'Intrusive h'

by Howard B. Woods

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REFERENCE BOOKS

PRODUCING SPEECH

You can not make a speech sound without breathing in or out. Try it!

Although every normal human being produces tens of thousands of speech sounds a day, most people are not consciously aware that these sounds are made by constricting and stopping the flow of air which is their breath.

All speech sounds in all languages (except for clicks) are made by controlling the flow of air from or to the lungs through the speech tract, i.e. the mouth, nose, and throat; the air flow can be constricted, or stopped and released, by means of the lips, teeth, tongue, roof of the mouth, uvula, nose, and vocal cords. Speech production is the mechanical manipulation of air.

In fact, several language sounds have been mechanically reproduced by releasing and constricting the outward flow of air from balloons and vacuum cleaners run in reverse.

This booklet and others in the series explain how Francophone students should manipulate their breath so as to better produce unfamiliar or difficult English sounds.

Introduction

Teaching the /h/ sound and teaching the elimination of the 'intrusive h' to Francophone students are indeed two difficult tasks. In both cases it is a question of how to initiate the production of the first vowel sound of the word to be pronounced. For each case, this booklet will describe the inter-language situation in which the students find themselves, and it will give the students techniques for moving their inter-language pronunciation increasingly closer towards English.

When dealing with the /h/ sound, the booklet will guide the students to expel air, or aspirate, immediately before beginning the vowel sound – an aspirated attack on the vowel. When treating the problem of the 'intrusive h', the student is instructed to initiate the production of the first vowel sound with a glottal catch – an abrupt attack on the vowel.

Unfortunately, Francophone students tend to do the direct opposite in both cases, i.e. they add an /h/ sound before words that should begin with vowels, and they produce a glottal catch /?/ before words that should begin with an /h/. Therefore, substantial explanations and many drills have been incorporated into the booklet. In addition, each case has interesting liaison features which are explained and drilled.

Only after all the drills and exercises do we discuss, as background information, aspiration in French and the glottal catch in French (h aspiré), and the confusion that surrounds the /h/ sound and the 'intrusive h' in English.

PRODUCING THE /h/

INTER–LANGUAGE SITUATION

/ʔ/ in place of /h/

In their inter-language, Francophone students tend to say ' ʔome', ' ʔouse', ' ʔelp', replacing the /h/ sound with a glottal catch /ʔ/.

The glottal catch is a sound which is made by building up air pressure behind the closed vocal cords and then suddenly releasing that air through the opened vocal cords; this creates a glottal catch sound which sounds like a weak cough or grunt.

This sound is represented in the International Phonetic Alphabet as a question mark without a dot ' ʔ '.

CORRECTION

/h/ should replace /ʔ/

If the students could substitute an /h/ sound for this glottal catch /ʔ/, this aspect of their pronunciation would be like that of a native speaker, for example 'home', 'house', 'help'.

Now it is our task to understand what the /h/ sound is and how it is produced.

WHAT IS THE ENGLISH /h/ SOUND?

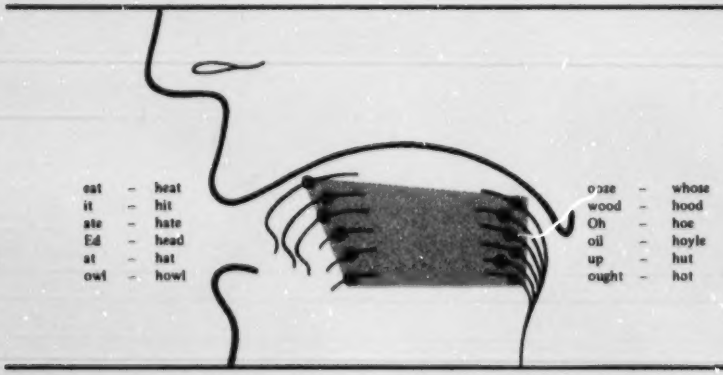
Is the English /h/ one sound?
Is it pronounced with the tongue, lips, and jaw in one position?
Is it guttural?
Is it voiced?
Is it a plosive?
Is it a consonant?
ANSWER: No to all of the above.

The /h/ as 12 Voiceless Vowels

An /h/ sound is produced very much like the vowel sound that immediately follows. It is simply the sound of air passing through a constricted area, this constricted area being the mouth and throat set in a position for a vowel sound.

In Canadian English, there are 12 vowels; consequently, there are 12 vowel positions of the mouth, and there is one /h/ sound for each vowel position of the mouth. The only difference between the vowel sound and the corresponding /h/ sound is that with the vowel sound the vocal cords are vibrating, and with the /h/ sound they are only slightly constricted.

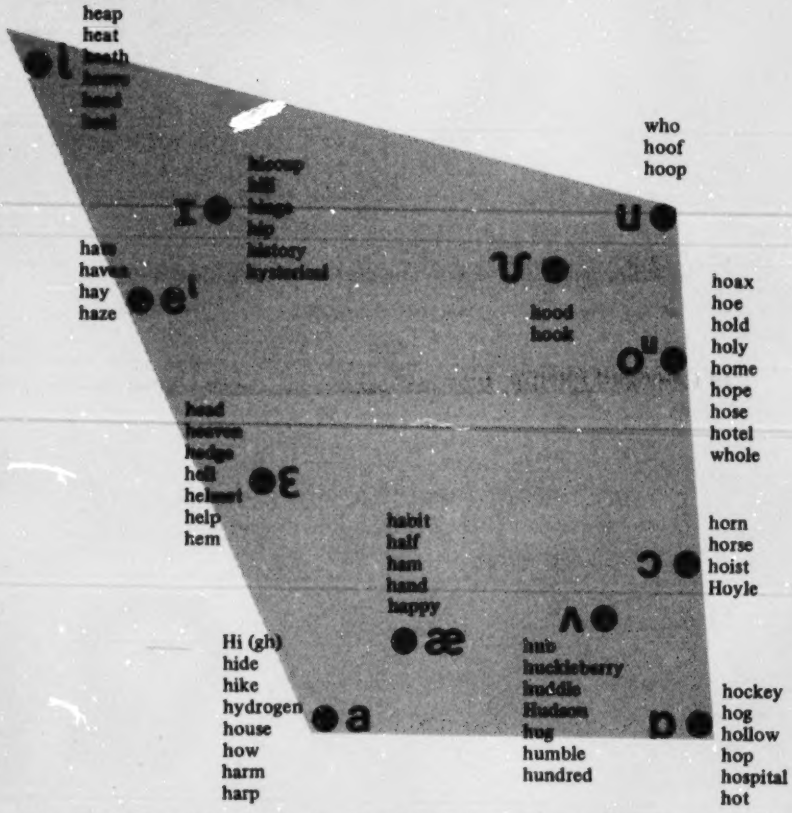
The tongue, jaw, and lips all have specific positions for each of the 12 vowels in English, and these 12 positions are exactly the same for the corresponding 'h's. The positions are:



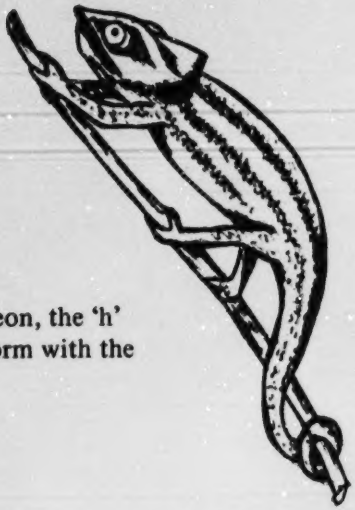
The above 'triangle' illustrates where the constriction between the tongue and the roof of the mouth is made to produce the various voiceless vowels or 'h's. The top line represents the roof of the mouth, the bottom line the jaw, and each dot the highest point of the tongue for one individual sound.

Note that the /h/ sound occurs only at the beginning of a word, except when preceded by a prefix, for example 'behind', 'behave', etc. Also note that the 'h' can be two voiceless semi-vowels as in 'human' /hjumən/ and 'where' /hwer/.

Practise pronouncing the following words grouped according to the vowel that follows the initial 'h' and its position in the triangle.



The concept of teaching the English /h/ sound as voiceless vowels is extremely useful for Slavonic, Greek, and Arabic speaking students, who have strong consonantal 'h' sounds.



Like the chameleon, the 'h' changes to conform with the environment.

SILENT INITIAL 'h'

The initial 'h' is always pronounced except in the following categories:

1. A few French loan-words have a silent 'h'. They are:
   heir, heiress, heirloom, herb, honest, honesty, honestly, honour, honourable, honorarium, honorary, honorific, hour, hourly.

The form of the indefinite article in front of these words should be 'an' rather than 'a'.

2. Pronouns and auxiliary verbs within a sentence are normally pronounced with their 'h' silent in liaison with the last sound of the preceding word. They are:

   he, his, him, her, them (formerly hem), has, have, had.

(Note that the 'h' is pronounced when these pronouns begin a sentence and when the verb 'to have' is either a main verb or a causative verb.)

Examples of unstressed words having a silent initial 'h':

a) he / iˈ /	Did he enjoy the show? (did_i enjoy the show) Where is he hiding? (where is_i hiding)
b) his /ɪz/	Does he like his car? (does_i like_is car) I hear his voice. (I hear_is voice)
c) him /ɪm/	Give him ten more minutes. (give_im ten more minutes) Ask him to do it. (ask_im to do it)
d) her /ər/	What's her name? (what's_er name) She misses her family. (she misses_er family)
e) them /əm/	Give them a chance. (give_em a chance) Tell them the truth. (tell_em the truth)
f) has /əz/	Howard has been here for 2 years. (Howard_as been here for 2 years) Helen has found a mistake. (Helen_as found a mistake)
g) have /əv /	That would have been fun. (that would_ave been fun) Chris and Jack have moved. (Chris and Jack_ave moved)
h) had /əd /	Tom had better shape up. (Tom_ad better shape up) Susan had gone to lunch. (Susan_ad gone to lunch)

. . . Also, the 'h' can be silent in the phrase "come here" frequently pronounced [kəˈmir].

EXERCISE

The following sentences all contain one or more words beginning with 'h'; underline the 'h's which are pronounced, and draw a line through those which are silent.

1. Henry is always hungry.
2. I hope he is an honest man.
3. The minimum wage is $4.50 an hour.
4. The Senator was his own worst enemy.
5. The hedge has grown too high.
6. He has long hair.
7. Her father warned her about hitch-hiking.
8. The hockey helmet didn't protect his ears.
9. He hardly remembers his honeymoon.
10. Prince Charles is the heir to the throne.
11. Helen has a green Pontiac.
12. Hey Harvey, come here, I want to tell you something.
13. She gave her speech with hardly any hesitation.
14. Harold hit his thumb with a hammer, and he had to go to the hospital.
15. Unemployment and inflation have hit dangerously high levels recently.
16. The unit has hired three new engineers, and we hope to have another competition soon.
17. Maintaining an image of honesty and integrity has always been a major concern among politicians.

BACKGROUND INFORMATION

Why is it difficult for Francophone students to pronounce the English /h/ sound?

A major reason for this difficulty is that a written 'h' in French; is often the symbol for a glottal catch; compare for example *le hibou* 'le ʔibou', *la hauteur* 'la ʔauteur', *le haricot* 'le ʔaricot'. (It is extremely unfortunate that this written 'h' is called an 'h aspiré' in French, as it is now neither an /h/ sound nor is it aspirated.) The students carry this reading pronunciation (i.e. reading 'h' as a glottal catch /ʔ/, over from French and apply it to English. Therefore, when Francophone students see 'home', 'house', 'help', etc., they say 'ʔome', 'ʔouse', 'ʔelp', etc.

In words where the French written 'h' is not pronounced as a glottal catch, it is simply silent: 'l'homme', 'l'heure', 'huit', etc. Consequently, when Francophone students are asked to produce an English /h/ sound, they rule out silence and naturally offer a glottal catch /ʔ/.

There is also a great deal of hyper-correction taking place. This results in students trying too hard and interchanging /ʔ/ and /h/ even when they know they should not.

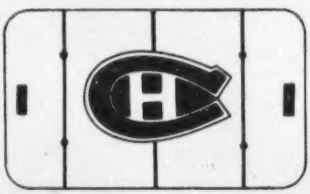
ELIMINATING THE 'INTRUSIVE H'

INTER–LANGUAGE SITUATION

/h/ in place of /ʔ/

In their inter-language, Francophone students tend to say 'happle', 'hink', 'herror', etc.

The difficulty occurs when the student is supposed to pronounce a word that begins with a vowel sound. The student inadvertently produces an 'h'. This unwanted aspiration is often called an 'intrusive h'.

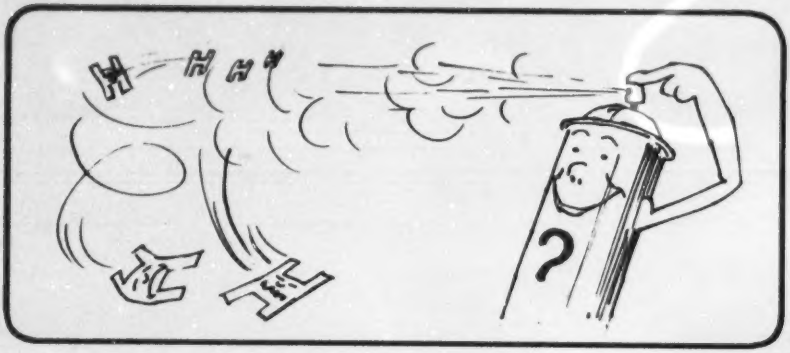


'Centre Hice'

CORRECTION

/ʔ/ should replace /h/

If the students could learn to substitute a glottal catch /ʔ/ for this /h/ sound, their English would more closely conform to that of a native speaker, i.e. 'ʔapple', 'ʔink', 'ʔerror', etc.



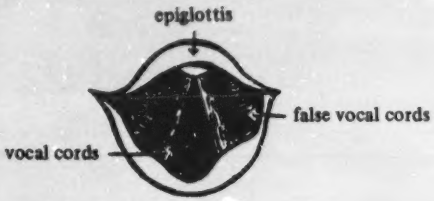
How to Eliminate the 'Intrusive h'

Anglophones produce a glottal catch immediately before all words that begin with a vowel sound. Pronounce the words 'ice', 'apple', and 'open', and notice how abruptly the initial vowel sound starts. This forceful attack on the vowel is in fact a glottal catch. If, when speaking English, the Francophone student learns to employ this glottal catch immediately before words beginning with a vowel, he will automatically eliminate the 'intrusive h'.

Perhaps before we ask the students to do exercises producing the glottal catch, we should look at what the vocal cords are and what a glottal catch is.

WHAT ARE THE VOCAL CORDS?

The vocal cords are two lips in the Adam's apple. Their primary function is to close off air at the throat so that we can lift heavy objects, give birth, eliminate wastes, etc. Their secondary function is to perform in the speech act. They produce the vibrating hum in /b d g m n ŋ z ʒ r l w j /and all vowels, and they produce the glottal catch.



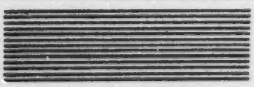
Cross section of the Adam's Apple

WHAT IS THE GLOTTAL CATCH?

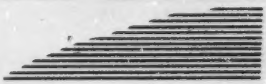
The glottal catch is a sound which is made by building up air pressure behind the closed vocal cords and then suddenly releasing that air through the opened vocal cords; this creates a glottal catch which sounds like a weak cough or grunt. (The /p/ sound, a labial stop, is made similarly by building up air pressure behind the two lips of the mouth and then suddenly releasing the air.)

The glottal catch is usually made unconsciously in speech. Therefore it may be helpful to have a technique to introduce its conscious control. One technique is to have the students lift heavy objects; as they lift, they will naturally close their vocal cords and press air against them. The next step is to have the students release the air through the opened vocal cords. The resulting sound is a glottal catch.

When the glottal catch is produced as the first part of a vowel, it is heard as an abrupt attack on the vowel and is in sharp contrast to the beginning of a French vowel, which has a soft or gradual attack; see illustrations.



Abrupt attack: English



Soft attack: French

. . . Children produce the glottal catch when they imitate machine-gun fire, goats, and sheep.

EXERCISES

A. Production

Try to pronounce the following words remembering to produce a glottal catch immediately before the initial vowel.

age	eat	ice	office	uncle
aid	east	iron	offer	up
act	easy	ill	Ottawa	
add	ear	inch	other	
ask	enter	interest	ooze	
arm	ever		out	
air	edge		old	
	eye		open	
	either		ocean	
	egg		only	
	eight		over	
	early			

B. Listening Discrimination

Now, let us try some minimal pairs to see if you can hear the difference. The teacher will pronounce a random sequence of the two words that form the minimal pair. The students will mark the appropriate boxes according to what they hear. Only a few sequences should be done at a time, and the teacher should frequently return to teaching and modelling the production and contrast of the two sounds.

a. ? air
h hair

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

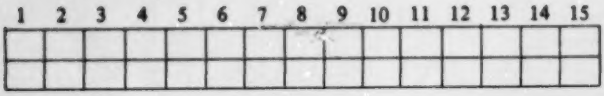
b. ? add
h had

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

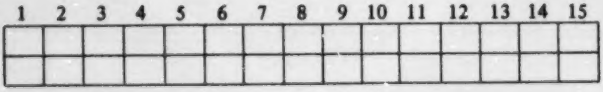
c. ? arm
h harm

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

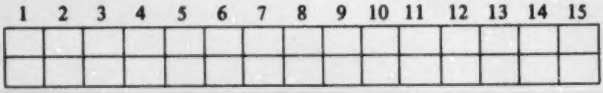
d. ? am
h ham



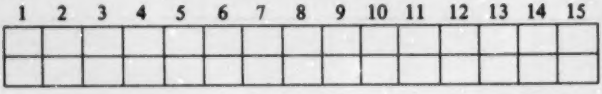
e. ? and
h hand



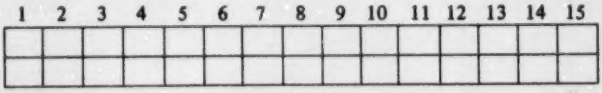
f. ? act
h hacked



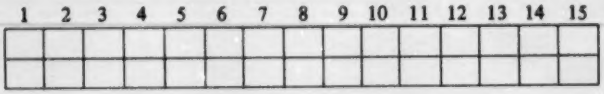
g. ? A's
h haze



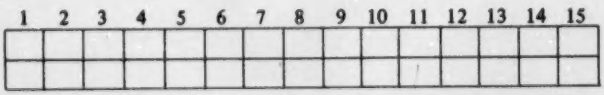
h. ? art
h heart



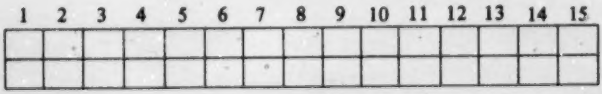
i. ? eat
h heat



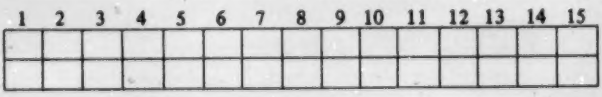
j. ? eel
h heel



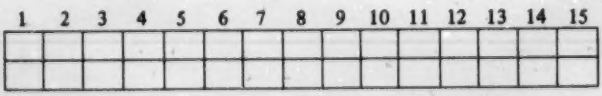
k. ? eave
h heave



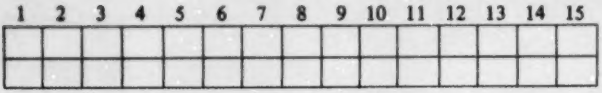
l. ? eight
h hate



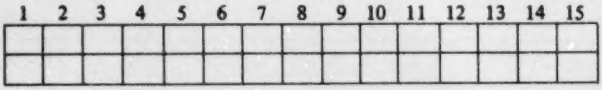
m. ? Ed
h head



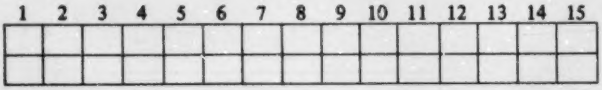
n. ? edge
h hedge



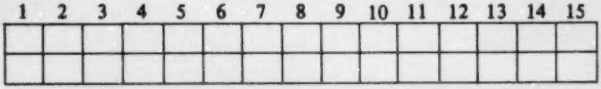
o. ? M
h hem



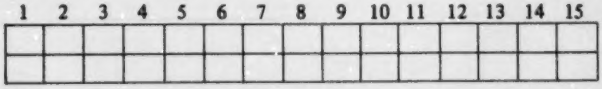
p. ? ill
h hill



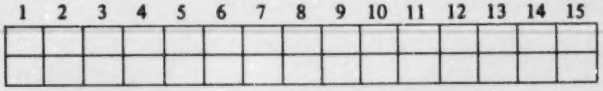
q. ? it
h hit



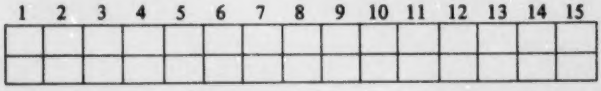
r. ? I
h Hi (gh)



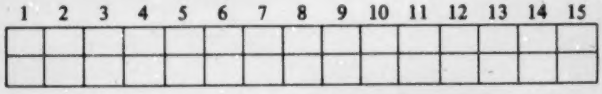
s. ? oaks
h hoax



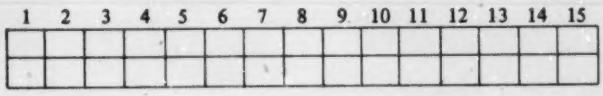
t. ? oops
h hoops



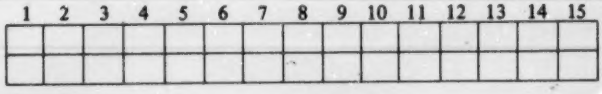
u. ? old
h hold



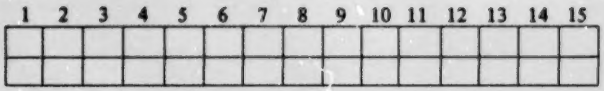
v. ? ohm
h home



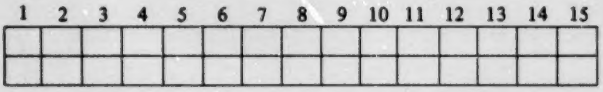
w. ? O's
h hose



x. ? oil
h Hoyle



y. ? ought
h hot



The roles can be reversed so that the student pronounces and the teacher marks what he hears. Also, the teacher may want to record these sequences in order to be able to retrieve what was actually pronounced.

THE GLOTTAL CATCH AND ARTICLES

The glottal catch in front of an initial vowel is a very strong feature of English. In fact, in North America, it often provides an alternative to a time-honoured rule. The rule is to say 'an' or 'the' /ðiⁱ/ before words that begin with a vowel sound. But, many of us frequently say 'a ʔapple', 'the answer' /ðə ʔænsər/, etc. somehow satisfied that we have started these words with a consonant (the glottal catch).

Another Way to Eliminate the 'Intrusive h': Liaison

We have seen and practised the use of the glottal catch for initiating the pronunciation of vowel sounds at the beginning of words. This technique is essential in English for words in isolation and words at the beginning of sentences, and it fully eliminates any possibility of an 'intrusive h' occurring.

For words within a sentence, the glottal catch is always correct. However another technique to eliminate the 'intrusive h' may also be employed. It is to fill the time when the 'intrusive h' could occur with the natural liaison features which are a part of any English sentence. Such liaison features occur both after vowels and after consonants.

LIAISON AFTER VOWELS

Insert a 'y' or 'w'

In English almost all vowel sounds at the end of a word have an upward glide towards an /i/ or an /u/, for example we - /wiⁱ/, day - /deⁱ/, my - /maⁱ/, boy - /bɔⁱ/, no - /noᵘ/, do - /duᵘ/, and how - /haᵘ/. In

continuous speech, when the next word begins with a vowel sound, it is very natural for this upward glide to be further constricted becoming the semi-vowels, /y/ and /w/ respectively. If the student follows this natural tendency to insert a 'y' or 'w', the 'intrusive h' is automatically eliminated. The 'y' or 'w' glide should be pronounced as weakly as possible.

EXAMPLES

Practise saying the following phrases inserting a 'y' or a 'w' liaison.

Add a 'y':	we ate	we (y) ate
	yes, I am	yes, I (y) am
	my aunt	my (y) aunt
	the ad	the (y) ad
	the apple	the (y) apple
	the accident	the (y) accident
	they opened the box	they (y) opened the box
	she ordered fish	she (y) ordered fish
	he insured it	he (y) insured it
	the boy entered	the boy (y) entered
	the toy is broken	the toy (y) is broken
	the eternal triangle	the (y) eternal triangle
	I asked you a question	I (y) asked you a question
Add a 'w':	how are you	how (w) are you
	now is the time	now (w) is the time
	you ought to	you (w) ought to
	blue ice	blue (w) ice
	two apples	two (w) apples
	so excited	so (w) excited
	he's a know-it-all	he's a know-(w)it-all
	I know it	I know (w) it
	there's no answer	there's no (w) answer
	yes, you are	yes, you (w) are
	to explain	to (w) explain
	and so on	and so (w) on
	how old is he	how (w) old is he

EXERCISES

A. Insert and pronounce a 'y' after words ending in
the /iʲ/ sound written e, ee, ea, ey, i, ie;
the /eʲ/ sound written ay, ey;
the /aʲ/ sound written i, igh, ie, ye, y;
the /oʲ/ sound written oy.

1. The ( ) empty jar.
2. He ( ) ate the ( ) orange.
3. The sea ( ) is blue.
4. Hindi ( ) is a beautiful language.
5. She ( ) eats too much.
6. Tea ( ) is served.
7. The refugee ( ) escaped.
8. The employee ( ) accepted.
9. She ( ) impressed the team.
10. Money ( ) is the root of all evil.
11. He was the ( ) heir to the throne.
12. The ( ) otter is ill.
13. The ( ) open-door policy.
14. The ( ) error was ignored.
15. Marie ( ) oiled the motor.

16. They ( ) are old.
17. Today ( ) is Wednesday.

18. I ( ) am hungry.
19. My ( ) ears are cold.
20. My ( ) eyes are brown.
21. I walked by ( ) a restaurant.
22. High ( ) altitudes frighten me.
23. Tie ( ) up the robber.
24. Dye ( ) it yellow.

25. The boy ( ) is exhausted.

B. Insert and pronounce a 'w' after words ending in
the /u^{u}/ sound written u, ue, ough, ugh, ew, o, oo, ou;
the /o^{u}/ sound written o, ow, oe;
the /a^{u}/ sound written ow.

1. She gave it to ( ) a friend.
2. Who ( ) ate the doughnut?
3. Sue ( ) is tired.
4. Who ( ) is the manager?
5. It's too ( ) early.
6. Lou ( ) invited your sister.
7. The new ( ) encyclopedia is good.
8. You ( ) eat too little.
9. You ( ) are right.
10. Two ( ) apples were rotten.
11. He ran through ( ) our garden.
12. Hugh ( ) ought to be more careful.
13. She got the job through ( ) a friend.
14. A few ( ) answer too ( ) often.
15. Who ( ) opened the door?

16. It's so ( ) exciting.
17. Low ( ) is the opposite of high.
18. Joe ( ) ordered a pizza.

19. How ( ) are you feeling?

LIAISON AFTER CONSONANTS

If there is a consonant sound just before a word that begins with a vowel sound, it is quite natural for this final consonant to be carried over to the following word; that is, liaison is made between the two words. Notice the liaison in the following examples. The consonants are not pronounced twice; the double consonant is meant to represent liaison.

EXAMPLES

1. The toys are in the box.
   (the toyz zare in the box)
2. The dog is sleepy.
   (the dog gis sleepy)
3. Mary turned it off.
   (Mary turned dit off)
4. The pipe on the table is brown.
   (the pipe pon the table lis brown)
5. The dish in the sink is dirty.
   (the dish shin the sink kis dirty)
6. There were 100 people in all.
   (there were 100 people in nall)
7. Don't stir up trouble.
   (don't stir rup trouble)
8. I'm as hungry as a dog.
   (I'm mas hungry as a dog)
9. She wanted an orange.
   (she wanted an norange)
10. Lost and found.
    (lost tand found)
11. They left an hour ago.
    (they left an nour ago)

BACKGROUND INFORMATION

Why does the 'intrusive h' occur?

Francophones are not accustomed to having to put a large amount of stress on a vowel that begins a word. (French is said to have a soft attack on the vowel.) When the students try to put a great deal of stress on an initial vowel, they produce an aspirated beginning to the vowel which, to Anglophones, is an /h/ sound and which, to the Francophones, is not significant. When the glottal catch is produced as the beginning portion of the vowel it eliminates the possibility of the 'intrusive h'.

FINAL EXERCISES (MIXED)

The following sentences deal with the 'h' and 'intrusive h' problem; try to read them correctly using the glottal catch, the voiceless vowels and liaison features.

1. He moved to Ottawa.
2. I sent it by hand.
3. My ears are cold.
4. It has happened before.
5. It took me two hours.
6. See you at the office.
7. Spring is in the air.
8. Do you honestly think so?
9. Anyway, I'm going to try it.
10. Harvey gets hungry very quickly.
11. Don't get angry with me.
12. How old is Eric?
13. They agree on that question.
14. I like to do my own thing.
15. How about leaving early today?
16. Harry's house was empty.
17. Are you all right?
18. I always get up early.
19. He lives in the area.
20. I'll bring you up to date.
21. I'll take you up on that.
22. What's on the agenda?
23. It can't go on like this.
24. I honestly don't know.
25. Why aren't you going?
26. I hear you're quitting.
27. Who answered the phone?

28. Who asked that question?
29. That drives me up the wall.
30. He lives way out in the sticks.
31. It's difficult to pronounce 'h'.
32. The hammer head was broken.
33. The ashtray is full of ashes.
34. I did it on my own time.
35. The book is on the edge of the desk.
36. The meeting should be over at 9.
37. I'm going to trade in my old car.
38. You can't have one without the other.
39. In any case, we'll know tomorrow.
40. On the other hand, it might be cheaper.
41. Imagine him trying to impress the board.
42. I'll be on vacation till the end of May.
43. Jack'll fill you in on the latest developments.
44. All the air was let out of the inner tube.
45. Don't ask him; he wouldn't know anyway.
46. I eat my breakfast every day at eight o'clock.
47. Would the owner of the blue Ford please move it from the entrance.
48. It's an honour to be with you tonight.

REINFORCEMENT TECHNIQUE

When a class is involved in role playing and discussing thematic material, the teacher may choose to hand out little cards each time that an 'intrusive h' is pronounced. This doesn't stop the flow of communication but allows the students to realize how frequently the 'intrusive h' occurs.

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